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EDUCATION THROUGH FARM DEMONSTRATION

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During the past twelve years a new and distinct type of agricultural education has been established in America. This new and practical plan of disseminating information may now be regarded as a part of the educational system of the country. It introduces a method by which those who do not attend schools are able to learn while they still pursue the busy work of their every-day struggle for a living. So far as agriculture and the rural problem are concerned, this system of education has given a new meaning to the phrase, "Knowledge and the means of education shall be forever free." It is rapidly giving to all rural people an equal opportunity to acquire useful knowledge without needless sacrifice of time. While the public school system brought some training in primary branches of learning within reach of the masses, it required the pupil to seek the education and confined its effort mainly to the youth of the land. Schools, colleges and universities necessarily withdraw the student from active life and from gainful occupations. Educational facilities supplied by these necessary and useful parts of our system are still found mainly within the walls of the institution. Above the primary grades education has been, after all, a thing for the few rather than for the masses.

Systematic teaching by demonstrations or object lessons in the field is a distinct addition to the American system of agricultural education. It does not take the place of nor does it interfere with any part of the present system. It is the addition of a new part. One of the recognized problems in agriculture is the dissemination of information. For years it has been recognized that farm practices in general have been much below those of the best farmers. The knowledge gained by the experiment stations and other public institutions established for the purpose of acquiring information has not been taken from the bulletins and put into universal practice. This is clearly recognized in the act establishing this new system of education when it says,—

That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same,

It is the purpose of this article to trace briefly the origin and history of the development of this system with special reference to the most important part of it, namely, the demonstration system of teaching through county agents, both men and women.

The first movement toward education outside of schools, so far as agriculture is concerned, was doubtless the institute. The early form of the institute was the neighborhood meeting. Then came the organized effort to instruct through the spoken word. These forms of instruction have been improved and developed and are still important parts of the complete system.

The publication of text books, bulletins and circulars from both public and private sources has played an important part in agricultural education. These are the records from which the material for instruction is obtained. The agricultural press has always been an important factor in the dissemination of agricultural information. The more the new system is developed, the more help will farmers derive from bulletins, the agricultural press and other publications.

THE DEMONSTRATION IDEA

Teaching by object lessons is not a new method. Laboratories and shops in our great institutions of learning testify to the educational importance of practical knowledge and the necessity of hand training and experience. In the agricultural world teaching through demonstrations has been of two kinds which should be carefully distinguished.

Long before the present system was evolved, not only the department at Washington, but many institutions and public or semi-public organizations had tried what may be called the "model farm" type of demonstration as a means of disseminating information about farming. In this plan the demonstration is a public one and the farm or demonstration is supported entirely from public funds or from funds of the organization desiring to teach the lesson. The result is that the teacher does all of the work and sets the result of his effort before the people to be copied. This plan did a great deal of good but it still required the farmer to come and view the demonstration, and it lacked the two important elements of having the

farmer do the work himself, and of adjusting the lesson to ordinary farm conditions and the means of the average farmer. A very small proportion of the farmers would go to see the model farm or demonstration, and few of those who did adopted the methods shown. No one was present on the average farm to assist the farmer in applying the method to his conditions. The mere illustration of a lecture by the instructor performing some act to show how a thing is to be done is often called a demonstration, but should not be confused in principle and effect with the demonstrations here described.

The most important part of the present system consists of demonstrations conducted on farms in the course of which the farmer does all the work and furnishes land, tools and equipment, while the instructor visits the farms regularly and assists in adapting the principles to local conditions. The result is an object lesson within reach of the farmer. Such a demonstration not only puts the lesson into actual practice, but also materially assists in fostering friendly relations of confidence and respect between the instructor and the one receiving the lesson.

ORIGIN AND GROWTH OF SYSTEM

In 1903-04 Congress made an appropriation authorizing work to counteract the ravages of the Mexican cotton boll weevil in Texas and other cotton states. This insect pest was laying waste the cotton fields of the southwest, leaving abandoned farms and business failures in its wake. A small portion of the funds so appropriated was devoted to a work conducted by the late Dr. Seaman A. Knapp to enable him to try out his method of teaching by conducting a large number of demonstrations on farms as described above. Dr. Knapp was then seventy years of age. He had been a stock farmer in Iowa in the '70's, and afterwards Professor of Agriculture and President of the Iowa Agricultural College. He had come to the South in 1885 and had devoted a great deal of his time to the development of the rice industry in Louisiana. In that work and in some of his work in Iowa he had used simple, direct methods of reaching farmers through practical field examples and, out of that experience, had suggested that he be permitted to try his plan of teaching farmers through demonstrations conducted on their own farms.

The work was actually begun in January, 1904. The main features consisted of personal visits of the department's representatives to a large number of farms scattered over the country then seriously affected. Demonstrations were carried on by these farmers under the careful instruction of these representatives. At first the work was devoted mainly to improving the cultural methods of raising cotton in order to minimize the damage from the weevil. However, it was soon seen that the difficulty could be met only by a general campaign of the same character for the purpose of bringing about a diversification of crops and better agricultural practices. The purpose was to bring about such a change that the farmer would not be dependent entirely upon cotton for both income and maintenance. Therefore, demonstrations in corn and many other crops were instituted in the same way.

The work was almost an immediate success. Thousands of examples or "demonstrations" were created by farmers through the instructions of the department's agents under Dr. Knapp's leadership. Meetings were held at the demonstrations and experiences compared at the end of the season. During the first year or two the work covered a great deal of territory. The demonstrations were scattered along railroads and main highways where they could be easily reached and seen. One agent was compelled to cover considerable territory. However, the effect was to restore confidence, and to give the people hope and something to live on while they readjusted their agriculture to meet the new conditions. Gradually the farmers began to understand that they could raise cotton in spite of the weevil, and the full restoration of prosperity was only a matter of time and the extension of the new type of education.

The General Education Board of New York was, at that time, engaged in an earnest effort to assist southern education, not only in colleges, but in secondary schools, and even the primary rural schools. Their attention had been called to the rural problem and to the rural schools and the general educational needs of the country. While studying the situation with a view to greater assistance, they came in contact with the work of the department under Dr. Knapp. Their representatives visited Texas, met Dr. Knapp and studied his work. They were interested and impressed with Dr. Knapp's statement that in meeting an emergency he had found an

opportunity to put into practice an idea he had worked out which he believed to be of universal application. They, therefore, offered to furnish the necessary funds to permit Dr. Knapp to try his plan in sections of the South far removed from the influence of the boll weevil, if arrangements could be made with the department of agriculture for the trial. As a result of their effort the offer was accepted and Dr. Knapp was furnished with funds from the General Education Board in addition to the funds from Congress. With the federal funds work was done in boll weevil territory and the territory immediately in advance of the weevil, which was gradually migrating from year to year north and east through the cotton states. With the funds of the General Education Board work of the same kind for the general improvement of agriculture and rural economic conditions was begun in Mississippi and Virginia in 1906, and was extended to Alabama, South Carolina, Georgia and North Carolina in 1907. The direct federal funds carried the work in Texas, Louisiana, Oklahoma and Arkansas. As the weevil advanced eastward, the states were transferred in succession from the General Education Board fund to the federal fund. The funds from both of these sources increased from year to year as the work grew in popularity. In 1909 the federal funds amounted to \$102,000 and those from the General Education Board to \$76,500.

In 1906 and 1907 such was the demand for the work that it was impossible to reach all who were insisting that they needed the help. When advised that financial assistance was the limiting factor in spreading the work, business men in some of the counties offered to assist in the payment of the salary of an agent if his activities could be restricted to their county. This was done. It had been fully realized by Dr. Knapp that the work would be improved by limiting the territory served by each agent. This led to the adoption of the title, "County Agent" afterward so well known in the South.

RECOGNITION BY STATES

In 1909 the state of Mississippi took the lead in recognizing the new type of education by enacting a law under which the county might pay part of the salary of the agent. In the years from 1909 to 1915, every southern state having power to grant such authority to the county passed some sort of law permitting the county government to coöperate with the United States Department of Agri-

culture in this work and to pay part or all the salary of the county agent. State appropriations were made also in a number of cases, the first in 1911 in Alabama.

The growth of the work was phenomenal. It soon became the rule rather than the exception for the county to furnish at least one-half of the money necessary for the salary and expenses of the county agent. Of late years the financial coöperation from local sources has practically doubled the service and met the appropriations dollar for dollar or more. During the early days of the development of the work men often served for the love of the service, and hence the rule was rather low salaries considering the service rendered. The work was always practical and direct. As it grew and developed and the men became more expert, the whole system gradually took form and certain well recognized methods were followed.

THE COUNTY AGENT'S WORK

What does a county agent do and how does he teach by demonstrations? The county agent goes to the farm and gives his instruction while the farmer is at his everyday duties. The aim of the work was and is to place in every community practical object lessons illustrating the best and most profitable method of producing the standard farm crops, or of animal feeding, etc., and to secure such active participation in the demonstration on the part of the farmers as to prove that they can make a much larger average annual crop, or feed or produce livestock more economically, and secure a greater return for their toil. Dr. Knapp said that it might be regarded as a "system of adult education given to the farmer upon his farm by object lessons in the soil, prepared under his observation and generally by his own hand."

The teaching was very effective because at first it was simple in character, direct, and limited to a few fundamental things, such as the preparation of a good seed bed, deep fall plowing, the selection of good seed, and shallow and intensive cultivation. In the early stages of the work Dr. Knapp framed what he called the "Ten Commandments of Agriculture," as follows:

1. Prepare a deep and thoroughly pulverized seed bed, well drained; break in the fall to a depth of 8, 10 or 12 inches, according to the soil; with implements that will not bring too much of the sub-soil to the surface; (the foregoing depths should be reached gradually).

2. Use seed of the best variety, intelligently selected and carefully stored.
3. In cultivated crops, give rows and the plants in the rows a space suited to the plant, the soil and the climate.
4. Use intensive tillage during the growing period of the crop.
5. Secure a high content of humus in the soil by the use of legumes, barnyard manure, farm refuse and commercial fertilizers.
6. Carry out a system of crop rotation with a winter cover crop on southern farms.
7. Accomplish more work in a day by using more horse power and better implements.
8. Increase the farm stock to the extent of utilizing all the waste products and idle lands on the farm.
9. Produce all the food required for the men and animals on the farm.
10. Keep an account of each farm product in order to know from which the gain or loss arises.

These became very widely known in the South and formed the basis for much of the work done by the agents.

The demonstrations were extended from crop to crop. With the fundamental idea that it was necessary to readjust the agriculture of the South and make it more profitable and to make the country life better, Dr. Knapp taught the great lesson of diversification or a self-sustaining agriculture. The preservation of the fertility of the soil and the furnishing of the living of the people on the farm from its products, were two necessary changes if the South was to prosper. With these things taken care of, that great section was well supplied with cash crops which it could produce and exchange in the markets of the world for the money with which to improve her life and her industries. The trouble was that the South was producing these splendid crops of cotton, tobacco, rice and sugar and exchanging them for her living.

REACHING MORE PEOPLE.

One of the problems was to reach as many farmers as possible. The county agent could not possibly carry on a demonstration on every farm in the county. Two plans proved effective. The first was to rely upon the fact that farmers, like other people, would imitate what they saw tried with success. It became very evident that one good demonstration in a neighborhood reached more people than the farmer who carried on the demonstration. A varying

number of the neighbors copied the practices and profited by the lesson because it was simple, and close by where they could see it. But some effort was also made to assist this process. Farmers around the demonstration were notified of the agent's visit and invited to come to the demonstration farm for a conference. These informal meetings were called field meetings or field schools. Neighboring farmers who were sufficiently interested agreed to carry on a demonstration on their own farms and to obtain their instruction from meeting the agent at the demonstration farms. These men who were not visited were called "coöperators." Out of these meetings grew neighborhood organizations of farmers or community clubs which now form an important part of the work.

BOYS' CLUBS

About 1908 Dr. Knapp first began what was known as the Boys' Corn Club Movement in the South. It is true that there had been corn clubs in a number of the northern states and in one or two of the southern states prior to that time. However, Dr. Knapp should receive the credit for systematizing this very important and excellent piece of work. He established it on an acre contest basis and arranged for the giving of prizes, not on the maximum yield alone, but upon the maximum yield at minimum cost, with a written essay describing the work done and an exhibit of the product. The objects of the Boys' Corn Club Work were:

1. To afford the rural teacher a simple and easy method of teaching practical agriculture in the schools in the way it must be acquired to be of any real service; namely, by actual work upon the farm.
2. To prove that there is more in the soil than the farmer has ever gotten out of it. To inspire boys with a love of the land by showing them how they can get wealth out of it by tilling it in a better way, and thus to be helpful to the family and the neighborhood, and
3. To give the boys a definite, worthy purpose and to stimulate a friendly rivalry among them.

The first effort in this direction was in Mississippi when Mr. W. H. Smith, then County Superintendent of Schools for Holmes County, did the work in coöperation with the demonstration forces. Results of this work were extended gradually to the other states until the Boys' Corn Club Movement as a part of the general scheme

of education through demonstration became a very large factor in southern agricultural work.

The Boys' Club Work was organized mainly through the schools. The county agent was recognized as the agricultural authority and gave the boys instruction. The school teachers generally acted as the organizers of the clubs. The county superintendent was a good coöperator. The state superintendent often assisted materially with the work. Prizes were contributed by local business men; the bankers became interested and often gave considerable money for prizes for these contests. The local contest and the county and state contest soon became very important and interesting events. In 1909 four state prize winners received free trips to Washington, D. C. For a number of years these annual trips attracted much attention. This plan was abandoned in 1914 for the better system of scholarship prizes. Since then the chief annual prize in the state has been a scholarship at the Agricultural College. Pig Clubs, Baby Beef Clubs, Clover Clubs, etc., are but a natural evolution which came with the years.

In 1911 the number of county agents had reached 583, the number of demonstrators and coöperators had reached 100,000, and the number of boys approximately 51,000.

GIRLS' CLUBS

In 1910 Dr. S. A. Knapp began to develop a part of the work for women and girls. It was his belief that he had thus far planned the work for the father and son. He desired to complete the work by doing something for the mother and daughter. In October, 1910, he wrote:

The Demonstration Work has proven that it is possible to reform, by simple means, the economic life and the personality of the farmer on the farm. The Boys' Corn Clubs have likewise shown how to turn the attention of the boy toward the farm. There remains the home itself and its women and girls. This problem can not be approached directly. The reformer who tells the farmer and his wife that their entire home system is wrong will meet with failure. With these facts in view I have gone to work among the girls to teach one simple and straightforward lesson which will open their eyes to the possibilities of adding to the family income through simple work in and about the home.

Beginning in the states of South Carolina, Virginia and Mississippi, there were developed that year a number of Girls' Canning

Clubs. In these clubs the girls were banded together, each to produce one-tenth of an acre of tomatoes on their own land, and, when their crop was matured, they were taught to can the product for use in winter. This work increased rapidly. The funds devoted to it the first year were a little less than \$5,000, the next year \$25,000.

This work for girls seemed to appeal to the people. It was taken up with great enthusiasm. The best trained school teachers and well educated and trained farm women were employed as agents and instructed in the work. Home gardening and the canning of fruits and vegetables for winter use appealed to the people as good education and good business. Many of the girls made surprisingly good profits from their demonstrations. They were taught to keep an account and to put up their canned product in standard weight cans, with full pack, and only the finest and most perfect of ripe fruits and vegetables. The result was to give them a ready market, a cash income for the family from a new source, and an interesting occupation. A new industry was thus established. To the canning clubs were added the poultry clubs a little later.

Two features of the Girls' Clubs should be mentioned. First, that they developed the girls and made them skillful and self-reliant. The canning club girls were the best students at school. Second, the very idea of the club, the association of the girls together, the meetings for canning, and all of the activities of the clubs, furnished a much needed social life which was greatly appreciated. Many of the meetings for actual instruction were heralded as social gatherings. The girls made their own aprons and caps (called uniforms) and attracted much favorable attention.

We hear much these past few years about the "mother-daughter" movement. The mothers in the South helped the daughters and were much interested in all that was going on in the clubs. At every meeting of the club for its canning lesson, the mothers were sure to be present and to take some part with their daughters. In the home, while the girls were required to do the actual canning in their competitions for prizes, the mothers were always watching and adopting all that they found good in the lessons for the girls. In this way much of natural prejudice against such an intimate kind of service was broken down and the woman agent found a ready wel-

come into the home and an opportunity to render service to the mother as well as the daughter.

THE WORK FOR WOMEN

In the first planning of the work for girls, it was expected to pave the way for the work with women by taking up the work for their daughters. Much help was given to the mothers before any definite work was actually outlined for them. About the year 1914 a few of the women agents began definite work with farm women. These first steps were generally in the direction of labor-saving devices for the home, such as home-made fireless cookers, etc., and the simple preparation of the girls' canned products for the table. The next year many of the women agents took up the work with women, and by the spring of 1916 there were over 7,000 women in the South demonstrating for themselves and their neighbors some new device for the saving of labor, some new method of cooking, or some item of home improvement.

As the club idea had succeeded so well with the girls, and as the idea of community organizations had taken strong hold in the work with farmers, the women were generally encouraged to organize neighborhood clubs. The practical side of the work was not neglected. Every member of the club was doing the work at home. Every one of them was profiting by the lesson and putting the new or improved method into practice. But the club brought them together occasionally. Its meetings were something to look forward to and hence an important part of the work.

COMMUNITY ORGANIZATIONS

In the broad development of the work as a whole the county agents, both men and women, naturally divide their activities into three general classes:

First: Their actual demonstrations with farmers, their wives, and the boys and girls.

Second: The giving out of general information through speeches, meetings, etc.

Third: Efforts to stimulate organization.

In the South organization work had proceeded mainly on a community basis. Community interest and activity have been often stimulated by the demonstrations, and the collecting of people

together at the demonstrations has furnished a ready means of natural organization of communities. In many communities there were already organizations such as the Farmers' Union. These are assisted by the county agents. As a rule the community organization has some definite object in view such as the improvement of agricultural practices, standardization of production, maintenance of pure varieties of seed and standardizing the production of various kinds of livestock. Very often, also, they have engaged in the coöperative purchase of supplies, mainly fertilizers, and in some coöperative marketing.

In the northern states there has grown up a type of organization known as the County Farm Bureau, which is mainly an organization of individual farmers who interest themselves in securing a county agent and assisting in the general work in the county. These organizations have proved quite effective in handling a large amount of business and creating greater interest in agriculture.

In many counties in the South the type of organization for the whole county consists in the confederation of representatives from the community organizations to form a county association for the general improvement of agriculture in the whole county. It is not possible in this short article to discuss the merits of the two types of organization. Each type has many points of merit and each seems to be meeting the present needs of the people. The ultimate type may be a combination of the good features of both plans.

Thus in brief we have the complete work involving the service of an educational system for the men, women, boys and girls on the farm. It should be fully understood that the county agent, either among the men or the women, is not left to his own fancy or whim in the work. First there are the state agents or leaders who look after the work in an entire state, with assistants, called by that name, or district agents in case they are given a portion of the state.

There are also specialists to complete the work. These are men who have been trained especially along some particular branch of agriculture and therefore have studied and prepared themselves to meet special problems or sets of problems. These men are entomologists, agronomists, horticulturists, dairymen, pathologists, etc. A few such specialists are employed to assist the county agents along these special lines. There are also such men as market experts and farm management experts who assist the county agents

in their various special problems. All of these together, under a general director, constitute what is usually known as the Extension Work or the Extension Service of the state.

Dr. Seaman A. Knapp died in the spring of 1911 at the ripe age of seventy-seven years. A short time before his death he wrote the following as his conception of the work which he had inaugurated:

TWO VIEWPOINTS

The Farmers' Coöperative Demonstration Work may be regarded as a method of increasing farm crops and as logically the first step toward a true uplift, or it may be considered a system of rural education for boys and adults by which a readjustment of country life can be effected and placed upon a higher plane of profit, comfort, culture, influence and power.

Because the first feature of this demonstration work is to show the farmer how he may more than double his crop at a reduced cost of production, it has been regarded by some solely as a method of increasing farm crops by applying scientific principles to the problem. This would be of great value to the world and would stand as a sufficient justification for the efforts put forth and the expenditures involved, but such a conception would fail to convey the broader purpose of this work.

There is much knowledge applicable and helpful to husbandry that is annually worked out and made available by the scientists in the United States Department of Agriculture and in the state experiment stations and by individual farmers upon their farms, which is sufficient to readjust agriculture and place it upon a basis of greater profit, to reconstruct the rural home, and to give to country life an attraction, a dignity, a potential influence it has never received. This body of knowledge can not be conveyed and delivered by a written message to the people in such a way that they will accept and adopt it. This can only be done by personal appeal and ocular demonstrations. This is the mission of the Farmers' Coöperative Demonstration Work, and it has justified its claims by the results.

It is noteworthy that the sciences adopted the demonstration method of instruction long since. The chemist and the physicist require their students to work out their problems in the laboratory, the doctor and surgeon must practice in the hospital, and the mechanical engineer must show efficiency in the shop to complete his education. The Farmers' Coöperative Demonstration Work seeks to apply the same scientific methods to farmers by requiring them to work out their problems in the soil and obtain the answer in the crib. The soil is the farmers' laboratory.

The demonstration method of reaching and influencing the men on the farms is destined ultimately to be adopted by most civilized nations as a part of a great system of rural education.

After his death the work was continued without interruption. In these years it grew as before and its various parts were perfected as the men engaged increased in knowledge and understanding of the

work they were doing. In 1911 the work had been extended to all of the southern states with the exception of Kentucky, West Virginia and Maryland. In these states it was begun in 1913.

COÖPERATIVE EXTENSION WORK

As early as the fall of 1911, an effort was made in South Carolina to bring together all the extension work in the state and to join the federal and the state forces into one organization managed under a coöperative agreement. The coöperative agreement was actually perfected in December, 1911, and put into operation in January, 1912. Under this plan the College of Agriculture of the State and the Federal Department agreed on a joint representative to administer the work in the state and agreed on the details and method under which he was to carry the work along. This plan proved an immediate success and was copied in Texas in 1912 and in Georgia in 1913. Florida fell in line in the early spring of 1914.

EXTENSION OF WORK

In 1911 some experiments in reaching farmers directly through a resident instructor were tried in the northern states under the direction of the Office of Farm Management of the Federal Department of Agriculture. In the early part of the year 1912 the same office was authorized to begin a systematic effort to extend this practical direct work among farmers into the northern states. The problems to be met were different and it required time and experience to enable the workers to adapt the fundamental principles involved in the demonstration work to the new field. North Dakota began an independent demonstration work early in 1912, afterward uniting with the department's general work of the same character. In addition to North Dakota, New York and Indiana were among the first to develop the work in the northern states. In all the northern and western work the well trained county agent was the necessary part of the plan as in the South.

THE SMITH-LEVER ACT

Beginning in 1862 with the Morrill Act for the endowment of the state colleges of agriculture, the Congress of the United States had passed a series of acts to assist the states in agricultural education and research. The Nelson Act increased the funds for teaching

agriculture in the colleges, and the Hatch and Adams Acts created and supported the state experiment stations.

It would be impossible to say just when the colleges had first begun to think about some act to assist them with the extension work or direct work with farmers, but certainly a number of years before the passage of the Smith-Lever Act the Association of American Agricultural Colleges and Experiment Stations had been interested and active in that direction. Many of the leading agricultural colleges of the northern states, and especially of the middle western states, had established extension departments of considerable proportions. Their work consisted mainly of the sending out of specialists, the conducting of institutes, movable schools of agriculture and home economics, short courses at the colleges, and boys' and girls' club work. Some plot work and a few demonstration farms of the kind first referred to in the early part of this article were also a part of the work. As already stated, the Office of Farm Management of the United States Department of Agriculture began actual work in the North in 1912. This work of putting county agents into northern counties grew rapidly and appropriations were increased to meet the expense.

It is not the purpose here to trace the history of the passage of the Lever Act. The act was finally approved by the President May 8, 1914. It provides for the establishment of coöperative extension work in agriculture and home economics. Each state was to establish a division for such work at its land grant college, that is, the college which had received the benefits of the Morrill, the Nelson, the Hatch and the Adams Acts. The act provides that the work shall consist of

instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State Agricultural College or colleges receiving the benefits of this Act.

The appropriations from the federal treasury, under this act, began with \$480,000 for the year ending June 30, 1915, which was divided equally, \$10,000 to each of the forty-eight states. For the next year an additional appropriation of \$600,000 was made and then the amount increases by \$500,000 per annum until the amount

reaches \$4,100,000 in addition to the original \$480,000, or a total of \$4,580,000. As to all the additional appropriation above the \$480,000, it is provided that it shall be divided between the states in the proportion that the rural population of each state bears to the total rural population, on condition that "*no payment out of the additional appropriation herein provided shall be made in any year to any State until an equal sum has been appropriated for that year by the Legislature of the State, or provided by State, county, college, local authority, or individual contribution from within the State for the maintenance of the coöperative agricultural extension work provided for in this act.*" This means that at the end of the year 1922 there will be an annual appropriation from the federal treasury amounting to \$4,580,000, and annual contributions from within the states amounting to \$4,100,000 for the support of the work, or a grand total of \$8,680,000. This will be the annual expenditure in this new and important system of agricultural education.

It should be remembered that the law itself makes this a coöperative work. The enormous annual economic loss in the United States by reason of soil depletion, insect ravages, diseases of crops and animals, improper cultural methods, and lack of proper marketing systems has been increasing from year to year. The nation, the states, the colleges and many public and private organizations have been attempting to correct these evils, each in its own way and with its own machinery and independent of the others. The resulting effort could not be otherwise than wasteful, more or less inefficient and often misdirected. Wrong principles were often advocated or correct ones improperly presented. Expensive effort was duplicated many times. Rivalries and competition were more common than harmony and coöperation. The result of it all was doubt, confusion and lack of confidence on the part of most of the people in agricultural work. The new act provides for unity and coöperation. The field force represents both the United States Department of Agriculture and the state colleges of agriculture.

Shortly after the passage of the act the Secretary of Agriculture put the act into effect by making an agreement with each state which brings all the work into harmony and unity through the one state organization representing both the state and the nation. Within the department he established the States Relations Service, the two divisions of which, under the director, handle the relations

with the states under this act and also administer all extension work of the department carried out through the state extension divisions.

Under the present plans there will eventually be a county agricultural agent in every county and also a county woman agent, each supported in their work by a trained force of specialists and a competent administrative staff.

So we have the new system of instruction with its full force of instructors and its plans being worked out. A great public service organization has been created. The effect of this great movement can not be estimated. In the South where it has been the longest in operation, the improvement in agriculture is most noticeable. Thousands of community organizations are drawing together for better rural life, hundreds of thousands of demonstrations are conducted each year and the actual number of persons reached already mounts into the millions. The wastes are being stopped, the bad practices remedied, the diseases eradicated, the fertility of the soil conserved and built up, the marketing systems improved, and country life is beginning to take on an air of interest and attractiveness which will hold its people and draw others to the great life of this foundation calling of the people. At this writing, June, 1916, there are practically 3,000 persons employed in the Extension Work, of whom 1,200 are county agents, 450 are women county agents, and the remainder specialists employed in the various states.

The work is yet in its infancy. With the years there will be improvements. What are now regarded as experiments will settle into accepted practices. Skill, form, system, all will grow and be developed as they have with the teaching in the schools. But the fundamental principle of having the teacher go to the one to be taught and to illustrate the lesson by a demonstration conducted by the one receiving the lesson will remain the very foundation of the new educational system. It has already triumphed where the word of mouth instruction failed. The dream of the founder has become the reality recognized and established by law.